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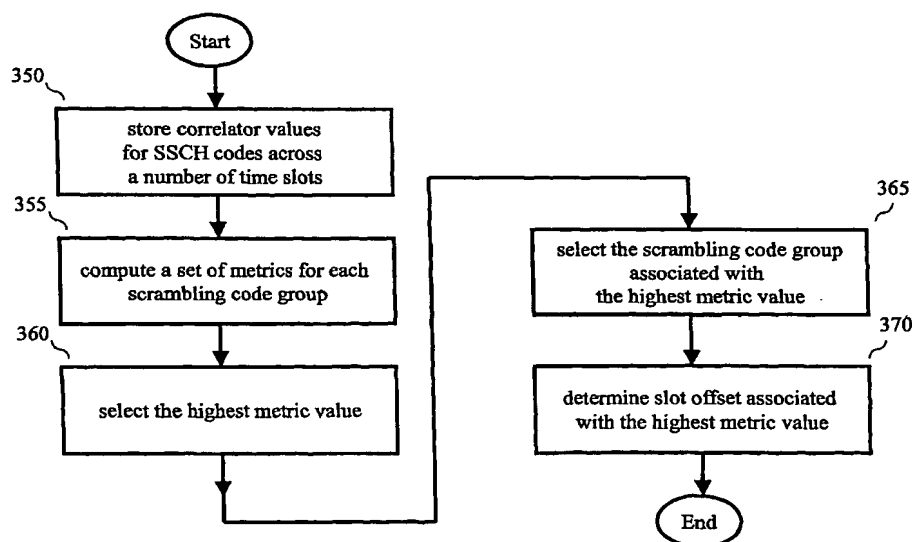
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(54) Title: **FRAME SYNCHRONIZATION USING SOFT DECISIONS IN A UNIVERSAL MOBILE TELEPHONE SYSTEM RECEIVER**



(57) Abstract: A Universal Mobile Telephone System (UMTS) receiver performs frame synchronization in accordance with a soft decision technique. Illustratively, the UMTS receiver first forms a matrix of correlation peak values (350) from at least one received frame, each row of the matrix representing a possible SSCH code and each column of the matrix representing a slot position of an SCH frame. The UMTS receiver then forms a metric (355) for each cyclic shift of each one of 64 possible scrambling code groups from the matrix of correlation peak values and identifies the metric with the highest value (360). Having identified the highest metric value (360), the UMTS receiver uses the scrambling code group (365) and offset associated thereto (370) to complete frame synchronization.